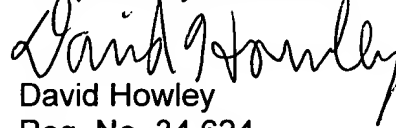


wasn't this matter raised sooner? Applicant believes copies of the references cited in the 1449 were in the file at the USPTO but got misplaced. In any event, in view of the foregoing, Applicant requests that the references listed on the PTO 1449 submitted with the original application be made of record.

In view of the foregoing amendments and remarks, Applicant requests that claims 1, 3-21 and 23-30 be allowed. Please contact the undersigned at the phone number below if a phone call would help to resolve any remaining issues.

Patent Department
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Respectfully submitted,



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"Version with marking to show changes made"

In the specification:

Paragraph beginning at page 1, line 27 has been amended as follows:

The product shown in the '698 patent is sold by Danville Engineering of San Ramon, CA [(www.daneng.com)]. This product is designed for use by a dental professional in a dentist office and not for home use by individual consumers. As such, some of the features of the product make it not suitable for home use. For example, the Danville product does not include an integral air compressor and electric motor to run the compressor. Accordingly, a consumer would have to buy a separate air compressor and place it in their bathroom along with the Danville product in order to use the system. Such an arrangement is inconvenient and would clutter up the bathroom counter.

Paragraph beginning at page 1, line 45 has been amended as follows:

Air Force Inc. of Holland, MI sells a product called the Dental Air Force [(see www.dentalairforce.com)]. This system uses air mixed with water and dental cleaner (sodium bicarbonate) to remove food and plaque off the teeth. Air delivers cleaner into tiny spaces between teeth and along the gums. Air and cleaner are sprayed from the end of a slim tip to remove plaque from the oral cavity.

Paragraph beginning at page 2, line 10 has been amended as follows:

Deldent Ltd [(www.Deldent.com)] discloses a series of dental products which appear to be for use by dental professionals and not by people in their homes. This company sells several air polishing units which the company claims operates at 35 psi.

Paragraph beginning at page 4, line 4 has been amended as follows:

Referring to Fig. 3, reservoir 16 holds a slurry 46 (in Figs. 2 and 3, top 18 has about the same diameter as reservoir 16, whereas in Fig. 1, top 18 has a larger diameter than the reservoir). The ratio of the particulate to the water by volume in the slurry is between 1:10 to 4:10, and preferably about 2:10. Compressed air enters the slurry by a tube 48 which is connected to inlet 35 [34]. A check valve includes a compression spring 50 which urges a ball 52 away from the spring to close off inlet 35 [34] when the air pressure drops below a pre-set limit. This arrangement prevents possible back flow of the slurry into inlet 35 [34] and beyond. Tube 48 extends to near the bottom of reservoir 16 and allows the compressed air to enter the slurry. The air agitates the slurry, creating bubbles and keeping the particulate in suspension. The air bubbles, laden with water and particulate, rise away from the top surface of the slurry as a bubble foam 53 (see US Patent 5,203,698 for more details). The continuing air pressure into reservoir 16 forces the air, water and particulate through outlet 43 and tube 42 to the applicator. Fig. 4 discloses applicator 24 from Fig. 1. Again, the applicator is connected to the slurry reservoir by a flexible tube 22. A fitting 55 secures the tube to outlet 43 of reservoir 16. Tube 22 forms part of a conduit for guiding the air, water and particulate from reservoir 16 to head 25 of the applicator. An on/off flow switch 57 is pressed to allow flow of the air, water and particulate to head 25 and released to disallow flow. The conduit extends through a handle 54 of the applicator to head 25. The conduit then splits and passes through a pair of manifolds 58 which each support a pair of nozzles 56 (only 1

pair is clearly visible). Within each manifold 58 the conduit splits again and connects to the two nozzles on the manifold. The air, water and particulate is ejected from the nozzle(s) in a way to safely remove plaque without damaging any hard or soft oral tissue. A plurality of bristle tufts 60 are also secured to head 25. The bristle tufts are primarily used to guide the placement of nozzles 56 within the mouth, but the bristles can also be used to simultaneously brush the teeth. Accordingly, air, water and particulate can be sprayed primarily onto the teeth and gums to provide enhanced cleaning.